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Patent Application  
Express Mail

COMPOSITION CONTAINING ASIASARI RADIX EXTRACTS  
FOR PROTECTING BRAIN CELLS AND IMPROVING MEMORY

*CA*  
*1/12/06*  
*This is a continuation of application number 10/080,052, filed February 21, 2002, now U.S. Patent number 6,737,057.*

BACKGROUND OF THE INVENTION

[0001] This invention is related to a composition for protecting brain cells and improving memory comprising Asiasari Radix extracts.

[0002] One of the major factors involved in brain cell damages is glutamate. Glutamate exerts its actions by binding to four types of receptors including NMDA receptor, AMPA receptor, Kainate receptor and 1S,3R-ACPD receptor [Craig CR, Stitzel RE, Modern Pharmacology with clinical applications, 293-302, 1997]. When brain ischemia occurs, oxygen supply to brain cells diminishes and then anaerobic glycolysis increases. Therefore, ATP content in the cell decreases and the concentration of extracellular potassium ions increases. Eventually, depolarization of neuronal cell membrane and subsequent release of excitatory amino acids occurs which results in the neuronal damages by the activation of receptors for NMDA, AMPA and Kainate. Excitotoxicity via excitatory neurotransmitters induces cellular stress and thereby plays an important role in the pathogenesis of neurodegenerative disorders such as Alzheimer's disease, Parkinson disease, strokes and amyotrophic lateral sclerosis [Haloween, B., J. Neurochem. 59,